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CONTENT AND ABSTRACTS**

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Lazăr, I.Gh., Constantin, T.A., Popescu Bușan, A., Nicoara, S.V., Stress and Strain State Modeling at a Concrete Piles Wall Designed for Hillside Support3

***Abstract** – The paper presents the design approaches for developing a hillside supporting solution in the area of a foreseen commercial center arrangement in Deva, Hunedoara County. Considering the sloped natural site, deep excavations are needed to reach the requested systematization level, while the obtained slope breaking is stabilized by the mean of a tangent reinforced piles solution.*

***Keywords:** numerical modeling, piles wall*

Staniloiu, C., Ștefănescu, C., Gîrbaciu, A., Trends And Recommendations for Adoption of Purification Technologies for Small Waste Water Treatment Plant.....9

***Abstract** – Purification of residual water is necessary for comfortable environmental and for prevention pollution which can cause the soil contamination and a water sources and assure a good environment for spread of diseases. The small waste water treatment plant or their alternative, the vacuum pipe and the pressure pipe provided efficiency on the isolated communities like individual households separated, parking lots, motels, hotels, farms, sanatorium, military units and others. This papers proposed to present the principales technologies applicable into small purification plant, trends that currently exist in their implementation and a set of recommendations necessary to choice of a specific type of small waste water treatment plant.*

***Keywords:** waste water treatment plants, biological filter*

Badaluta Minda, C., Cretu, Gh., Monitoring of the accidental floods in Timis – Bega system13

***Abstract** – Abstract- Based on the quantitative and qualitative monitoring from the Timis – Bega system to analysis the arrangement possibility of some pilot stages for the monitoring of the accidental floods. The paper studies the dates monitored for the accidental floods, in finally creating the realization possibility of the informational – decisional system in case of the disaster in the longitudinal works.*

***Keywords:** Timis – Bega water engineering system, monitoring of the accidental floods*

Ștefănescu, C., David, I., Cristian Staniloiu, C., Permeable Pavements17

***Abstract** – A variety of product alternatives to traditional paving exist that allow for the infiltration of stormwater. Certain products are more applicable in certain settings; therefore, each paving type contains information regarding the best use of the product. Limitations are also highlighted.*

***Keywords:** concrete pavers, grid pavers, parking areas, pervious concrete*

Ștefănescu, C., Rainwater Catchment System21

***Abstract** – The rainwater catchment system is based on collection of rainwater and gravity flow pressure principles. Rainwater runs off the roof of the house into rain gutters. The gutters channel the water and empty it into a standpipe. When the standpipe has reached its capacity of 570 l, the overflow runs through a pipe and empties into a 900 m³ drum. Two 1135 l barrels collect the overflow from the 3400 l drum and any other overflow drains to the public sewer system. Spigots are built into the bottom of the standpipe and the 3400 l drum. The pressure of the water in the standpipe and the drum pushes the water out when the spigots are opened.*

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***Abstract** – These papers present the factors and effects of the climate modification. Factors of climate modification are enumerated and explained: the greenhouse effect, dust clouds and ash particles resulted from volcanic eruption and rarefaction of ozone stratum from stratosphere.*

Consequences of climate modification: increasing El Nino frequency phenomenon, desertification phenomenon represent very important problems of mankind in the last decade.

Keywords: *global warming, desertification process, arid, climate change, dry land*

Nemeş, N., Costescu, I.A., Hălbac Cotoară Zamfir, R., The Quantitative Prognoses of the Generated Wastes in Timișoara29

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Keywords: *waste, management plan, sanitation services*

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Abstract – *The papers presents the specific fluxes of the wastes that are generated in Timisoara, including the used batteries, the used motor vehicle accumulators, the motor vehicle used oil, the wastes from electric and electronically equipments, . the out of use vehicles and the waste from the demolition.*

Keywords: *waste, waste’s flux, demolition wastes.*

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Abstract – *The papers presents the biogas’s perspective to be used like an alternative source of energy in the context of environmental protection. We analyzed the international uses of biogas compared with the national situation. Like natural gas, biogas has a wide variety of uses, but as it is derived from biomass, it is a renewable source of energy. There are many other benefits to be derived from the process of converting substrates into a biogas plant.*

Keywords: *environmental protection, biogas, alternative source, biogas plant*

Ene, C., Rogobete, Gh., Adam, I., Forest Fire Risk Analysis In Forests Berzasca41

Abstract – *The method of the forest fire risk assessment allow to establish appropriate fire prevention measures for the long term. Forest fires are complex phenomena caused by a multitude of causes. The assessment of the risk of the forest fire is an approximately method because the basic factors are difficult to determine with precision. In our country were not preoccupations for developing such methods until alignment of the Romanian fire defence legislation at the EU legislation. Initially, in the Government Ordinance nr.60/1997, it was demanded to introduce a chapter with methods of the forest fire risk in the specific norms of fire defence. Currently, the Law nr.307/2006 requires that the public authorities develop methods for assessing fire risk. On the international level, there are different methods of forest fire risk assessment.*

Keywords: *Fire, forest, Berzasca, risk analyse*

Ene, C., Rogobete, Gh., Analysis Of Forest Fires Causes44

Abstract – *The origin of fire is often difficult to determine due to the lack of concrete material evidence, that because it is a large percentage of unknown causes. This percentage reaches 18% in Spain, 33% in France, 30% in Romania, 26% in Greece, 31% in Portugal and 48% in Turkey.*

Keywords: *Fire, natural cause, human cause, fire investigation*

Suiugan, M., C., Andrisca, S., Man, T., E., Water monitoring in Crisuri hydrographic space46

Abstract – *Development and modernization requirements of Waters Monitoring National System are covered by the provisions of the European Directives and international agreements and conventions. The monitoring process is in close connection with the assessment process of water quality, this being considered in sequence, and with a final result, characterization and knowledge of the status of surface and underground waters. The number of monitoring sections must be choosing in the way to permit the assessment of the ecological and chemical status, for all water bodies.*

Keywords: *water body, monitoring, ecological status, water framework directive.*

Sumalan, I., The rehabilitation of the old water structures in Banat region, Romania52

Abstract – Abstract – *The South-Western part of Romania it's an important region where several pioneer technical issues started in eighteen century. Among these can be mentioned the double water way connection system between Bega and Timis Rivers. The goal of this double connection are multiple, it should be mentioned here as ensuring the normal flow rate on Bega River (river regulation), to ovoid the flood of the most important settlements in the region Timisoara. The paper focuses on the discharge channel, so called Ferdinand channel and belonging water structures, than because of their age must be repaired on the main section of the channel but also in the rest of the arrangement. Because of the complex geometry of the system and the lack of a physical hydraulic model an combined and original theoretical calculus is presented.*

Keywords: *free surface flow, complex spillway, hydraulic jump, energy dissipater*